

Hongliang LÜ

Postdoctoral Researcher Inria

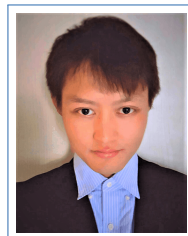
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Nationality: Chinese



PROFESSIONAL EXPERIENCE

- From Oct. 2017 **Postdoctoral Researcher**, *French Institute for Research in Computer Science and Automation (Inria)*.
Bayesian nonparametric priors for hidden Markov random fields.
- Feb. 2017 to present **Participation in an innovative project**.
Mobile application development based on Big Data and Deep Learning.
◦ In our team, I am responsible for data collection and cleaning, text mining, and image recognition by deep learning.
- Dec. 2015 to May 2017 **Postdoctoral Researcher**, *French Radioprotection and Nuclear Safety Institute (IRSN)*.
Interdisciplinary research (neutron metrology/statistics) and scientific programming.
◦ Applied Bayesian Networks (Probabilistic Graphical Models) to the estimation of measurement uncertainties;
◦ Modeling/simulation of a gas-filled neutron detector and analyzed experimental data using computer cluster;
◦ Conducted collaboration meetings with experts in statistics from IRSN and LNE (National Laboratory of Metrology and Testing) and wrote internal reports and scientific articles for peer-reviewed journals.
- Oct. 2012 to Sept. 2015 **Doctoral Researcher**, *French National Center for Scientific Research (CNRS)*.
Interdisciplinary research (nuclear physics/statistics) and scientific programming.
◦ Improved a computer code for simulating the nuclear reactions leading to the formation of super-heavy elements;
◦ Performed uncertainty analysis using Monte-Carlo method to investigate the predictive power of theoretical models;
◦ Applied advanced statistical methods, such as Bayesian inference, multiple linear regression and statistical tests, to the theoretical modeling of nuclear reactions;
◦ Stayed in China and Japan for scientific collaborations and wrote scientific papers for peer-reviewed journals.
- Oct. 2014 to Sept. 2015 **Undergraduate Teaching Assistant**, *University of Caen Normandy*.
Complementary teaching activity (an annual service of 64 hours).
◦ Supervised practical works in general physics (L1) and numerical calculations (L3).

EDUCATION & CERTIFICATIONS

- 2017 **Online courses with certificates**, *Coursera*.
◦ Machine Learning (Stanford University);
◦ Big Data Integration and Processing (UC San Diego), Machine Learning With Big Data (UC San Diego).
- 2012 to 2015 **Doctor of Philosophy in theoretical physics**, *University of Caen Normandy*.
- 2010 to 2012 **Master of Science**, *University of Caen Normandy*.
- 2007 to 2010 **Bachelor of Science**, *University of Caen Normandy*.

LANGUAGES

Chinese: Native or bilingual proficiency
English: Professional working proficiency

French: Full professional proficiency
Japanese: Elementary proficiency

SELECTED PUBLICATIONS

- **H. Lü**, D. Boilley, Y. Abe, C. Shen, "Synthesis of superheavy elements: Uncertainty analysis to improve the predictive power of reaction models", *Physical Review C*, 2016, 94(3), 034616.
- **H. Lü**, A. Marchix, Y. Abe, D. Boilley, "KEWPIE2: A cascade code for the study of dynamical decay of excited nuclei", *Computer Physics Communications*, 2016, vol. 200, p. 381-399.
- **H. Lü**, D. Boilley, "Modelling with uncertainties: The role of the fission barrier", *EPJ Web of Conferences*. EDP Sciences, 2013. p. 03002.

HONORS & AWARDS

- Sino-French Innovation & Entrepreneurship Competition 2017 « Win in Suzhou », 3rd prize, May 2017
- Best Participant Award, TALENT Course 2013 at GANIL, Caen, France, July 2013
- Fellowship program for young scientists at RCNP, Osaka University, Osaka, Japan, July 2011